



DRAFT GROUND WATER CLASSIFICATION SYSTEM

DEVELOPED BY THE
DEPARTMENT'S GROUND WATER
CLASSIFICATION GROUP



Ground Water Classification Group

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TDEC'S APPROACH

- ESTABLISH AN INTERNAL GROUND WATER CLASSIFICATION STUDY COMMITTEE WITH REPRESENTATION OF ALL IMPACTED DIVISIONS
- SEEK ADVISED CONSENT THROUGHOUT THE DEPARTMENT
- PRESENT SUGGESTED REVISIONS TO INTERESTED PARTIES OUTSIDE THE DEPARTMENT AND SEEK ADVISED CONSENT
- APPROACH THE WQCB TO PURSUE RULE REVISIONS OR, IF NEW RULES PROVE UNNECESSARY, REVISIT THE IMPLEMENTATION POLICY OF THE EXISTING RULES



DEPARTMENT'S REASONS FOR A NEW CLASSIFICATION SYSTEM

- ONLY TWO PETITIONS EVER RECEIVED TO USE THE SITE SPECIFIC GROUND WATER CLASS
- NO CRITERIA AVAILABLE TO EVALUATE GROUND WATER WITHOUT A CLASSIFICATION
- THE DEPARTMENT CAN NOT CLASSIFY GROUND WATER WITHOUT A PETITION
- THE LIMITED USE CLASSIFICATION CRITERIA ARE NOT READILY QUANTIFIABLE
- DISAGREEMENTS EXIST BETWEEN APPLICANTS AND THE DEPARTMENT OVER WHAT IS LIMITED USE GROUND WATER
- PROVISIONS FOR TREATMENT SYSTEMS SUCH AS SEPTIC TANKS NOT ADDRESSED
- GROUND WATER ALMOST ENTIRELY NEVER CLASSIFIED



WHY IS SETTLING ON A CLASSIFICATION SYSTEM SO HARD IN TENNESSEE?

- THE WATER QUALITY ACT LOOKS TO THE CURRENT OWNER TO ADDRESS CONTAMINATION, IS NOT SENSITIVE TO COST OR AVAILABLE TECHNOLOGY IN ADDRESSING POLLUTION, AND THE ACT RESERVES CLASSIFICATION OF WATERS AND ESTABLISHMENT OF CRITERIA FOR THE WQCB.
- THE REMEDIATION ACTS LOOK TO RESPONSIBLE PARTIES, OFTEN NOT THE CURRENT OWNER, ARE GENERALLY SENSITIVE TO COST AND TECHNOLOGY, AND ARE UNDERSTANDING OF SITE SPECIFIC STANDARDS BASED ON RISK.



WHAT IS NEW IN THIS DRAFT

- ALL GROUND WATER IS CLASSIFIED AT THE TIME THE RULE BECOMES EFFECTIVE.
- CAVE SYSTEM STREAMS RECEIVE PROTECTION SIMILAR TO THAT PROVIDED FOR SURFACE STREAMS.
- TREATMENT SYSTEMS PERMITTED FOR USE IN THE ZONE OF AERATION ARE ACKNOWLEDGED AND PROVIDED FOR.
- SITE SPECIFIC IMPAIRED GROUND WATER IS ESTABLISHED BY THE WQCB BY RULE UPON SUCCESSFUL PETITION.
- THE LIMITED USE GROUND WATER CLASS IS ELIMINATED.
- THE WQCB ACKNOWLEDGES THAT CLEAN UP OF GROUND WATER AND NECESSARY PROTECTION OF THE PUBLIC OCCURS UNDER THE AUTHORITY OF VARIOUS REMEDIATION ACTS AND SUPPORTS THE COMMISSIONER'S USE OF THOSE ACTS TO ADDRESS GROUND WATER.
- KNOWN CONTAMINATION MUST BE REPORTED TO THE DEPARTMENT.



NEW DEFINITIONS

- AREA OF CONTROL
- GROUND WATER
- PERCHED WATER
- ZONE OF AERATION
- ZONE OF SATURATION



WATER IN THE ZONE OF AERATION

- NOT DEFINED AS GROUND WATER
- PROTECTED FOR DRINKING WATER WHERE IT IS A WATER SUPPLY
- PROTECTED AS A STREAM IN CAVE SYSTEMS SUPPORTING LIFE
- PROTECTED TO PREVENT OTHER HEALTH RISKS



RULES INTENT AND PURPOSE

- CLASSIFY GROUND WATER AND PROVIDE CRITERIA
- PROVIDE FLEXIBILITY TO PROMOTE REUSE OF THE LAND
- PROVIDE A BASIS FOR DECISIONS INVOLVING GROUND WATER ACROSS THE DEPARTMENT



SPECIAL SOURCE WATERS

- NONE NAMED IN THE PROPOSAL
- CAN INCLUDE GROUND WATER AND PERCHED WATER
- ESTABLISHED BY RULEMAKING
- INTENDED FOR USE WHERE CRITERIA OF GENERAL USE ARE NOT ADEQUATE



GENERAL USE GROUND WATER

- UNLESS OTHERWISE IDENTIFIED,
GROUND WATER IS GENERAL USE.



SITE SPECIFIC IMPAIRED

- 2 SITES INCLUDED BASED ON DESIGNATIONS FROM CURRENT RULE
- NEW SITES PROMULGATED BY RULE
- PETITION TO THE BOARD FOLLOWS THE REQUIREMENTS FOR INFORMATION IN CURRENT RULE



UNUSABLE GROUND WATER

- NATURALLY OCCURRING DISSOLVED SOLIDS GREATER THAN 10,000 PPM
- HISTORIC DEEP WELL INJECTION ZONES
- NEW CLASS I, II, AND III INJECTION ZONES
- ACID PRODUCTION ZONES FROM MINING ACTIVITIES



CRITERIA

- SPECIAL SOURCE – PROMULGATED WITH EACH DESIGNATION
- GENERAL USE – 1200-4-3-.03(1)j and k PLUS UNREASONABLE RISK CONTROL
- SITE SPECIFIC IMPAIRED – PROMULGATED WITH EACH DESIGNATION PLUS TOXICS CONTROL AND UNREASONABLE RISK CONTROL
- UNUSABLE GROUND WATER - TOXICS CONTROL AND UNREASONABLE RISK CONTROL PLUS A PROHIBITION TO CAUSING A SURFACE WATER VIOLATION



PERCHED WATER

- USED FOR DRINKING – GENERAL USE CRITERIA
- CAVE SYSTEM HABITAT FOR FISH AND AQUATIC LIFE – 1200-4-3-.03(3)
- UNREASONABLE RISK CONTROL



REMEDIATION OF GROUND WATER AND PERCHED WATER – ACTS AND GOALS

- IDENTIFIES THE SOLID WASTE ACT, THE HAZARDOUS WASTE ACT, THE PETROLEUM UNDERGROUND STORAGE TANK ACT, AND THE DRYCLEANER ENVIRONMENTAL RESPONSE ACT AS AUTHORITIES AVAILABLE TO THE COMMISSIONER TO ADDRESS VIOLATION OF CRITERIA
- STATES THE GOALS FOR REMEDIATION ACTIONS ARE TO MEET THE CRITERIA AND PROTECT THE PUBLIC



REMEDIATION OF GROUND WATER AND PERCHED WATER – USE OF AREA OF CONTROL ALLOWED

- IF ESTABLISHED, COMMISSION DEFINES AREA OF CONTROL, and
- PROTECTS THE PUBLIC FROM EXPOSURE
- IF THE SOURCE OF POLLUTION IS FOUND, THE COMMISSIONER MAY TAKE ACTIONS TO REDUCE CONTAMINATION IN THE AREA OF CONTROL



REMEDIATION OF GROUND WATER AND PERCHED WATER – HISTORIC CONTAMINATION BEFORE 10/19/1980 AND NO LIABLE PARTIES AVAILABLE

- COMMISSIONER MAY DEFINE AN AREA OF CONTROL
- COMMISSIONER MAY TAKE ACTIONS TO REDUCE CONTAMINATION
- COMMISSIONER MAY PROTECT THE PUBLIC FROM EXPOSURES TO THE WATER IN THE AREA OF CONTROL



REPORTING REQUIREMENT

- WHEN A LANDOWNER IDENTIFIES GROUND WATER CONTAMINATION IN EXCESS OF THE GENERAL USE CRITERIA, THE LAND OWNER SHALL NOTIFY THE COMMISSIONER WITHIN 30 DAYS OF LEARNING OF SAID CONTAMINATION.



USE OF THE CLASSIFICATION SYSTEM BY REMEDIATION PROGRAMS

- ALLOWS USE OF INSTITUTIONAL CONTROLS TO PROTECT AGAINST EXPOSURE
- PROVIDES CRITERIA THAT IDENTIFY STATE INTEREST AT SITES
- INTRODUCES THE AREA OF CONTROL CONCEPT
- INTRODUCES THE IDEA OF PRACTICABLE SOLUTIONS
- SUBSTANTIAL ROOM FOR POLICY DEVELOPMENT TO PROMOTE REUSE OF BROWNFIELD SITES